

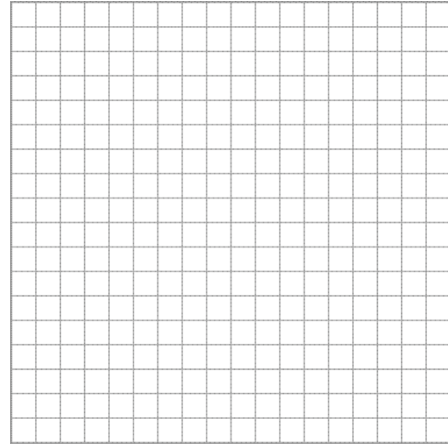
## Section 5-7: Graphing Inequalities in the Coordinate Plane

**Warm-up:** Graph the following.

1.  $x \leq 3$

2.  $t > -4$

3.  $y = 2x - 1$

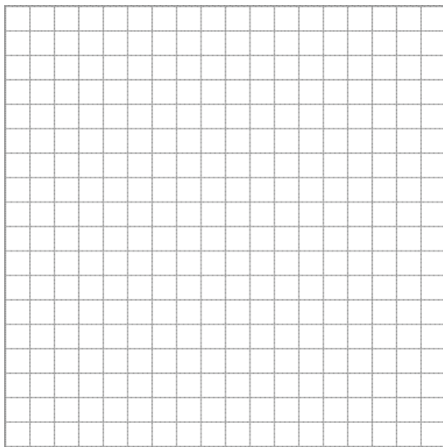


*How do you graph linear inequalities?*

*Half-plane:*

*Boundary:*

*Example 1:* Graph  $y < 3$  on a coordinate plane.



### *Graphing Linear Inequalities*

1.

2.

→

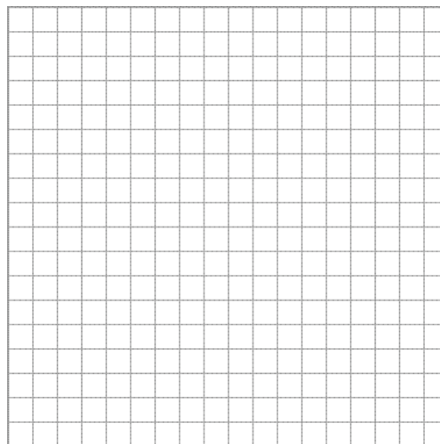
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3.

→

→

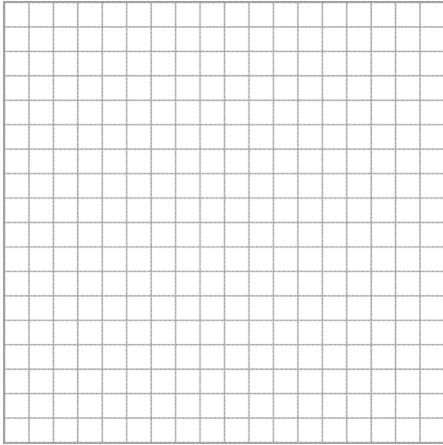
*Example 2:* Graph  $y \leq \frac{4}{3}x + 5$ .



*Lattice Points:*

*Example 4:* Matt Mitarnowski has at most \$1.50 in his pocket.

a. Draw a graph showing all possible combinations of dimes and quarters Matt could have.



b. How many coordinates are there?

*Homework:*

***“To have a right to do a thing is not at all the same as to be right in doing it.”***

***- GK Chesterton***